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SCIENTIFIC-ATLANTA, INC.  
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EXAMINER

SHANG, ANNAN Q

ART UNIT PAPER NUMBER

2614

DATE MAILED: 06/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/592,405

Applicant(s)

ADDINGTON ET AL.

Examiner

Annan Q. Shang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-25 are rejected under 35 U.S.C. 102(e) as being anticipated by **Borseth (6,340,997)**.

As to claim 1, note the **Borseth** reference figures 2-4, discloses a worldwide television tuning system with object-based tuning control modules (col. 4, lines 9-16) and further disclose in a subscriber television system, a method for determining at a decoder (Viewer Unit 'VU' 56 or Tuning System 'TS' 100 'VU/TS-56/100') a service group associated with the decoder, the subscriber television system including a headend (Headend 'HE' 52), at least one node (Broadcast Medium 'BM' 54), and a transmission medium for transmitting signals between the headend, any nodes, and the decoder, the method comprising the steps of:

the claimed "retrieving a service group table from a signal on the transmission medium," "retrieving tuning information from the service group table..." and "tuning to a frequency retrieved from the tuning informing" are met by Receiver (R) 60 or VU/TS-

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56/100 (figs. 1-5 and col. 4, line 18-col. 5, line 1+), which receives various electronic program guide (EPG) or channel list "a service group table" (see fig. 5, col. 6, lines 23-29 and col. 7, lines 24-49) from HE-52 via BM-54 where channel list includes a plurality of channel numbers "channel list identifications" and associated ITU Country Code Table "information" for determining a channel list to which the VU/TS-56/100 "decoder" belongs; where the tuning information includes at least one frequency (col. 5, lines 56-32 and col. 6, lines 58-67);

the claimed 'timing to a frequency retrieved from the tuning information," determining if a valid signal is present at the tuned frequency," and "storing the associated service group on the decoder" are met by Central Processing Unit (CPU) 62 (fig. 3-4, col. 4, line 63-col. 5, line 19, col. 6, lines 15-57, col. 7, lines 1-28 and line 50-col. 8, line 7), which communicates with Various Drivers, Filters, Decoders and other elements of VU/TS-56/100, times to a frequency retrieved from the tuning information, determines if a valid signal is present at the tuned frequency, and if a valid signal is detected at the tuned frequency, determining an associated channel list from the various channel list table as the channel list for the VU/TS-56/100; if the valid signal is not detected at the tuned frequency, repeating for the remaining frequencies in the channel list until a valid signal is detected and determining an associated channel list as the channel list for VU/TS-56/100 (col. 7, lines 1-col. 8, line 40) and storing the channel list on VU-50 or TS 100 (col. 7, line 60-col. 8, line 7), note that VU/TS-50/100 tunes to a list of channels of a region, state, country, etc., and scans for optimal tuning frequencies

and the best possible signal within the channel (col. 8, line 11-14, col. 8, line 33-55 and col. 9, line 64-col. 10, line 31).

As to claim 2, Borseth further discloses comparing, prior to storing the associated channel list (CH-list), the associated CH-list with a currently stored associated CH-list stored in the decoder and, if the associated CH-list and the currently stored associated CH-list are different, transmitting to the HE-52 from the VU/TS 50/100 a message with the associated service group (col. 10, line 61-col. 11, line 31)

As to claim 3, Borseth further discloses determining whether the tuned frequency includes an MPEG TS (col. 5, lines 20-30, col. 7, lines 29-49 and col. 8, lines 33-54).

As to claim 4, Borseth further discloses determining a TS identification of the valid signal, and using the TS identification to determine the associated CH-list, where the CH-list table, includes at least one TS identification associated with each frequency listed in the CH-list table (col. 5, lines 20-30, col. 7, lines 29-49 and col. 8, lines 33-54).

Claim 5 is met as previously discussed with respect to claim 1.

As to claim 6, note the **Borseth** reference figures 2-5, discloses a worldwide television tuning system with object-based tuning control modules (col. 4, lines 9-16) and further discloses in a subscriber television system, a method for determining a service group associated with at least one decoder (Viewer Unit 'VU' 56 or Tuning System 'TS' 100), the subscriber television system including a headend (Headend 'HE' 52) with includes a modulator, at least one node (Broadcast Medium 'BM' 54), a plurality of decoders (VU/TS-56/100), and a transmission medium for transmitting signals

between the headend, the at least one node, and the plurality of decoders, the method comprising the steps of:

HE-52 “means for creating a service group” which creates various electronic program guide (EPG) or channel list (CH-list) “a service group table” for VU/TS-56/100 “subscriber television system” where the CH-list, where the CH-list table includes a plurality of channel numbers “service group identifications” and associated ITU Country Code Table “information” for determining a CH-list to which the VU-56 “decoder” belongs; where the tuning information includes at least one frequency (col. 5, lines 56-32 and col. 6, lines 58-67); VU/TS-56/100 sends a request “message,” over the Internet or broadcast regarding changes or updates to the CH-list, which causes HE-52, “a transmitter” to transmit the CH-list via BM-54 “transmission medium” to the at least one VU/TS-56/100 (col. 10, line 61-col. 11, line 31), the messages includes region, state, country, location, etc., associated with VU/TS-56/100, where the HE records the relationship of VU/TS-56/100 associated with the CH-list (col. 7, lines 1-col. 8, line 40) and storing the channel list on VU/TS-56/100 (col. 7, line 60-col. 8, line 7), note that VU/TS-50/100 communicates to HE-52 via Internet or broadcast, downloads data that enables the VU/TS-50/100 to reconfigured itself to receive different television broadcast or CH-list based on the location and tunes or scans for optimal tuning frequencies and the best possible signal within the channel (col. 8, line 33-55, col. 9, line 64-col. 10, line 31 and line 62-col. line 31).

Claim 7, is met as previously discussed with respect to claim 3.

Claim 8, is met as previously discussed with respect to claim 5.

As to claim 9, the claimed “a modulator for transmitting a service group table...” comprising...” contains the same structural elements as rejected claim 6.

As to claim 11, Borseth further discloses where the modulator further includes a means responsive to commands for controlling the creations of the service group table (col. 10, line 61-col. 11, line 31)

Claim 12, is met as previously discussed with respect to claim 3.

As to claim 13, note the **Borseth** reference figures 2-5, discloses a worldwide television tuning system with object-based tuning control modules (col. 4, lines 9-16) and further discloses a decoder (Viewer Unit ‘VU’ 56 or Tuning System ‘TS’ 100 ‘VU/TS-56/100’) capable of determining its association with a service group of a subscriber television system, the subscriber television system having a headend (HE-52), at least one node (Broadcast Medium ‘BM’ 54), the decoder, and a transmission medium for transmitting signals between the headend, the at least one node, and the decoder comprising:

The claimed “a tuner for tuning to a signal received from a transmission medium...” is met by Receiver (R) 60, Tuner/Decoder 64 or Tuner 110 of VU/TS-56/100 (figs. 1-5 and col. 4, line 18-col. 5, line 1+), which receives various electronic program guide (EPG) or channel list “a service group table” (see fig. 5, col. 6, lines 23-29 and col. 7, lines 24-49) from HE-52 via BM-54 where channel list includes a plurality of channel numbers “channel list identifications” and associated ITU Country Code Table “information” for determining a channel list to which the VU/TS-56/100 “decoder”

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belongs; where the tuning information includes at least one frequency (col. 5, lines 56-32 and col. 6, lines 58-67);

the claimed "for retrieving a service group table from the tuned signal," "means for retrieving tuning information from the service group table..." "means for causing the re-tuning to a frequency retrieved from the tuning informing" "means for determining if a valid signal is present on the at least one frequency," and "means for determining, from the service group table..." are met by Central Processing Unit (CPU) 62 (fig. 3-4, col. 4, line 63-col. 5, line 19, col. 6, lines 15-57, col. 7, lines 1-28 and line 50-col. 8, line 7), which communicates with Various Drivers, Filters, Decoders and other elements of VU/TS-56/100, which retrieves CH-list table from the tuned signal, retrieves ITU country Code Table and frequencies "tuning information" from the CH-list, causes re-tuning of the Tuner to at least one frequency indicated by the tuning information, determines if a valid signal is present at the tuned frequency, and if a valid signal is detected at the tuned frequency, determining an associated CH-list from the various CH-list table as the CH-list for the VU/TS-56/100; if the valid signal is not detected at the tuned frequency, repeating for the remaining frequencies in the CH-list until a valid signal is detected and determining an associated CH-list as the CH-list for VU/TS-56/100 (col. 7, lines 1-col. 8, line 40) and storing the CH-list on VU-50 or TS 100 (col. 7, line 60-col. 8, line 7), note that VU/TS-50/100 tunes to a list of channels of a region, state, country, etc., and scans for optimal tuning frequencies and the best possible signal within the channel (col. 8, line 11-14, col. 8, line 33-55 and col. 9, line 64-col. 10, line 31).



As to claim 14, the claimed “memory for storing a currently associated service group” is met by Memory 76 (col. 6, lines 8-33), CPU 74 further determines if the CH-list associated with the at least one frequency is the same as the currently associated CH-list and, if it is not, replacing the currently associated CH-list in the memory with the CH-list associated with the at least one frequency (col. 10, line 61-col. 11, line 31).

As to claim 15, Borseth further determines where VU/TS-56/100 includes a transmitter for transmitting the CH-list via Internet, broadcast, cable network transmission medium 54 (col. 10, line 61-col. 11, line 31).

Claim 16, is met as previously discussed with respect to claim 5.

As to claim 17, note the **Borseth** reference figures 2-5, discloses a worldwide television tuning system with object-based tuning control modules (col. 4, lines 9-16) and further discloses a system controller for causing to be stored and updated a database of a service group association for each a plurality of decoders (Viewer Unit ‘VU’ 56 or Tuning System ‘TS’ 100 ‘VU/TS-56/100’) of a subscriber television system, the subscriber television system having a Headend (Headend ‘HE’ 52), at least one node (Broadcast Medium ‘BM’ 54), plurality of decoders, and a transmission medium for transmitting signals between the Headend, the at least one node, and the plurality of decoders, the system controller comprising:

The claimed “means for causing to be stored the database of a service group associated for each of the plurality of decoders” “means for causing the creation of a service group table for the subscriber television system...” “means for causing the headend to transmit the service group table to at least one of the plurality of

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decoders..." "means for receiving a message from the at least one of the plurality of decoders..." and "means for causing the update of the database responsive to the service group associated with the at least one of the plurality of decoders being different from a stored service group..." are met by Broadcast Transmitter (BC-Tran) 52 (figs. 2 and col. 4, lines 18-28), which is a Satellite Transmitter, RF transmitter, cable head end and video server with BM 54 (satellite, RF, cable and Internet); which includes a Processor that causes storing Channel (CH) list or EPG "service group" associated for each of plurality of VU/TS-56/100 "decoders" in various locations (col. 4, lines 28-62, col. 6, lines 15-33, col. 7, lines 1-28 and line 50-col. 8, line 23);

HE-52 "means for creating a service group" which creates various electronic program guide (EPG) or channel list (CH-list) "a service group table" for VU/TS-56/100 "subscriber television system" where the CH-list, where the CH-list table includes a plurality of channel numbers "service group identifications" and associated ITU Country Code Table "information" for determining a CH-list to which the VU-56 "decoder" belongs; where the tuning information includes at least one frequency (col. 5, lines 56-32 and col. 6, lines 58-67); VU/TS-56/100 sends a request "message," over the Internet or broadcast regarding changes or updates to the CH-list, which causes HE-52, "a transmitter" to transmit the CH-list via BM-54 "transmission medium" to the at least one VU/TS-56/100 (col. 10, line 61-col. 11, line 31), the messages includes region, state, country, location, etc., associated with VU/TS-56/100, where the HE records the relationship of VU/TS-56/100 associated with the CH-list (col. 7, lines 1-col. 8, line 40) and storing the channel list on VU/TS-56/100 (col. 7, line 60-col. 8, line 7);

HE-52 further updates the database responsive to the CH-list associated with at least one of the plurality of VU/TS-50/100 being different from a stored CH-list associated for the at least one of the plurality of VU/TS-50/100s and causes to be stored the updated database (col. 7, line 1-28, line 50-col. 8, line 23 and col. 9, line 64-col. 10, line 12, line 63-col. 11, line 31); note that VU/TS-50/100 communicates to HE-52 via Internet or broadcast, downloads data that enables the VU/TS-50/100 to reconfigured itself to receive different television broadcast or CH-list based on the location and tunes or scans for optimal tuning frequencies and the best possible signal within the channel (col. 8, line 33-55).

Claim 18, is met as previously discussed with respect to claim 5.

As to claim 19, note the **Borseth** reference figures 2-5, discloses a worldwide television tuning system with object-based tuning control modules (col. 4, lines 9-16) and further discloses a system controller for determining a service group associations of a plurality of modulators in a subscriber television system, the subscriber television system having a Headend (Headend 'HE' 52), at least one node (Broadcast Medium 'BM' 54), a plurality of modulators, plurality of decoders (Viewer Unit 'VU' 56 or Tuning System 'TS' 100 'VU/TS-56/100'), and a transmission medium for transmitting signals between the Headend, the at least one node, and the set of audit designated decoders (VU/TS-56/100), the system controller comprising:

the claimed "means for storing updating a database of frequencies, related transport stream identifies, associated service group identities for each of the plurality of modulators," "means for causing the creation of a modulator tuning table the subscriber

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television system..." "means for causing to be transmitted, from the headend, the modulator tuning table via a transmission medium to at least one of the audit designated decoders..." "means for receiving a message from the at least one of the audit designated decoders..." and "means for causing the update of the database responsive to the service group associated with the at least one of the plurality of decoders being different from a stored service group..." are met by Broadcast Transmitter (BC-Tran) 52 (figs. 2 and col. 4, lines 18-28), which is a Satellite Transmitter, RF transmitter, cable head end and video server with BM-54 (satellite, RF, cable and Internet); which includes a Processor, modulators, etc., that causes storing and updating of a database of Channel (CH) list or EPG of frequencies, related transport stream identities, associated with CH-list "service group" identities for each of the plurality of modulators; creating of a modulator tuning table the subscriber television system which includes tuning frequencies related to each of the modulators (col. 4, lines 28-62, col. 6, lines 15-33, col. 7, lines 1-28 and line 50-col. 8, line 23);

HE-52 transmits the various created electronic program guide (EPG) or channel list (CH-list) "a service group table" for VU/TS-56/100 "one of the set of audit designated decoders" where the CH-list, where the CH-list table includes a plurality of channel numbers "service group identifications" and associated ITU Country Code Table "information" for determining a CH-list to which the VU-56 "decoder" belongs; where the tuning information includes at least one frequency (col. 5, lines 56-32 and col. 6, lines 58-67); VU/TS-56/100 sends a request "message," over the Internet or broadcast regarding changes or updates to the CH-list, where the message includes the related

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transport stream identities determined by VU/TS-56/100, base on the frequencies related to the modulators, locating a valid transport stream related to the tuned frequency and retrieving a related transport stream identification from the transport stream (col. 10, line 61-col. 11, line 31), the messages includes region, state, country, location, etc., associated with VU/TS-56/100, where the HE records the relationship of VU/TS-56/100 associated with the CH-list (col. 7, lines 1-col. 8, line 40) and stores the channel list on VU/TS-56/100 (col. 7, line 60-col. 8, line 7);

HE-52 further updates the database responsive to the CH-list associated with at least one of the plurality of VU/TS-50/100 being different from a stored CH-list associated for the at least one of the plurality of VU/TS-50/100s and causes to be stored the updated database (col. 7, line 1-28, line 50-col. 8, line 23 and col. 9, line 64-col. 10, line 12, line 63-col. 11, line 31); note that VU/TS-50/100 communicates to HE-52 via Internet or broadcast, downloads data that enables the VU/TS-50/100 to reconfigured itself to receive different television broadcast or CH-list based on the location and tunes or scans for optimal tuning frequencies and the best possible signal within the channel (col. 8, line 33-55).

Claims 20 and 21 are met as previously discussed with respect to claim 5.

As to claim 22, note the **Borseth** reference figures 2-5, discloses a worldwide television tuning system with object-based tuning control modules (col. 4, lines 9-16) and further discloses a method of using at least one of a set of designated audit decoders (Viewer Unit 'VU' 56 or Tuning System 'TS' 100 'VU/TS-56/100') at specific locations within the subscriber television system to define a service group, the

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subscriber television system having a Headend (Headend 'HE' 52), at least one node (Broadcast Medium 'BM' 54), a plurality of modulators, plurality of decoders (VU/TS-56/100), and a transmission medium for transmitting signals between the Headend, the at least one node, and the set of audit designated decoders (VU/TS-56/100), the system controller comprising:

the claimed "establishing, in the headend, modulator tuning table listing available subscriber television system frequency associated with the plurality of modulators" "transmitting the modulator tuning table from the headend on the transmission medium to at least one of the set of audit designated decoders," "retrieving the modulator tuning table at the at least one audit designated decoder; tuning at the at least one audit designated decoder, to frequencies listed in the modulator tuning table and if a valid signal is detected..." are met by Broadcast Transmitter (BC-Tran) 52 (figs. 2 and col. 4, lines 18-28), which is a Satellite Transmitter, RF transmitter, cable head end and video server with BM-54 (satellite, RF, cable and Internet); which includes a Processor, modulators, etc., that establishes a modulator tuning CH-list or EPG available the television system associated with the plurality of modulators, transmits the modulator tuning CH-list from HE-52 on BM-54 to at least of VU/TS-56/100 "one of audit designated decoders," and retrieves the modulator tuning CH-list at the VU/TS-56/100, tuning VU/TS-56/100 to each frequencies listed in the modulator tuning CH-list and if a valid signal is detected, retrieving an associated MPEG transport stream identity for the tuned frequency (col. 4, lines 28-62, col. 6, lines 15-33, col. 7, lines 1-28 and line 50-col. 8, line 23);

VU/TS-56/100 transmits to HE-52 the retrieved transport stream identities for the tuned frequency associated with the VU/TS-56/100 and defines as the CH-list the subset of modulators associated with the transport stream identities of the tuned frequencies with the valid signal of at least one of VU/TS-56/100 associated with the specific location of the at least one VU/TS-56/100 (col. 5, lines 56-32 and col. 6, lines 58-67 and col. 10, line 61-col. 11, line 31); note that VU/TS-50/100 communicates to HE-52 via Internet or broadcast, downloads data that enables the VU/TS-50/100 to reconfigured itself to receive different television broadcast or CH-list based on the location and tunes or scans for optimal tuning frequencies and the best possible signal within the channel (col. 8, line 33-55).

Claim 23 is met as previously discussed with respect to claim 5

As to claim 24, Borseth further discloses defining all the service groups of the subscriber television system based on the subset of modulators associated with the TS identifies of the tuned frequencies with a valid signal and associated specific location of each of the set of audit STT(S) (col. 7, line 1-28, line 50-col. 8, line 23).

Claim 25 is met as previously discussed with respect to claim 5.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection discussed above. This office action is a non-Final.

**Conclusion**

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee (6,734,804) discloses automatic channel memory and selection method for a television set.

Vaughan et al (6,757,912) disclose channel server functionality.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Annan Q. Shang** whose telephone number is **571-272-7355**. The examiner can normally be reached on **700am-500pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John W. Miller** can be reached on **571-272-7353**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the **Electronic Business Center (EBC)** at **866-217-9197 (toll-free)**.



**Annan Q. Shang**



**JOHN MILLER**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**